Geetika Barla

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Summary

Software engineer with a focus on AI and data-driven solutions. Experienced in building applications like AI chatbots, Java Swing platforms, and scalable data pipelines. Skilled in Python, Java, SQL, and cloud tools, with a proven ability to turn ideas into practical, working solutions. Comfortable working on both research projects and production-ready software.

Education

Northeastern University | Masters of Science in Information Systems

Boston, MA

Relevant Coursework: **Application Engineering Development**, Data Management & Database Design, *Expected December 2026* Designing Advanced Data Architectures for Business Intelligence, **Prompt Engineering & AI, LLM with**

Knowledge Graph DB

Jawaharlal Nehru Technical University | Bachelors of Technology in Computer Science Engineering

Hyderabad,India July 2023

Technical Skills

Programming Languages: Python, Java, JavaScript, SQL, R

Application Development: Java Swing, React.js, Flutter, HTML, CSS, REST API Integration

AI & Intelligent Systems: NLP, Data Science, Predictive Modeling, Conversational AI (Rasa), Knowledge Graph integration, familiarity with AI agent workflows and Retrieval-Augmented Generation (RAG) through coursework and prototypes

Automation & Pipelines: Workflow Automation, ETL Development, Azure Data Factory, Azure Databricks

Databases: MySQL, PostgreSQL, MSSQL, Oracle, Snowflake, Dimensional Modelling

Tools & Frameworks: Git, Jira, Confluence, Docker, Figma

Visualization: Tableau, Power BI, Excel, ggplot2

Experience

Support Administrator

Nov 2024- May 2025

Northeastern University -Research Enterprise Services Boston, MA

- Improved system accuracy by 20% by resolving 10+ reporting inconsistencies through application module validation and root cause analysis for a research data management platform.
- Increased operational efficiency by automating updates to 500+ records, ensuring compliance and accuracy across research databases through scripted workflows.

Software Development Engineer

Byteridge Software Private Limited | Hyderabad, India

July 2023- June 2024

- Enhanced research capabilities by prototyping an AI-powered chatbot using Python, Rasa, and NLP to analyze news articles and simulate disaster alerts through context-driven response workflows.
- Reduced front-end error rates by 30% by resolving 70+ UI issues in React.js and JavaScript, improving platform stability.
- Improved system responsiveness by 20% by integrating REST APIs for CRUD operations, streamlining communication between front-end and back-end systems.
- Reduced post-launch defects by 25% by conducting comprehensive end-to-end testing and implementing targeted UI enhancements.

Software Engineer Intern

Feb 2023- June 2023

Byteridge Software Private Limited | Hyderabad, India

- Boosted user engagement by 20% by delivering a fully functional Flutter-based roommate finder app from concept to deployment, integrating real-time chat with Firebase and API-based user data management.
- Increased application reliability by fixing 15+ functional issues through iterative testing, debugging, and performance optimization during development.

Projects

Intelligent Context-Aware Task Manager -ongoing

- Building an AI-powered task manager using MCP to store long-term task history and user preferences for adaptive prioritization.
- Implementing an AI agent with OpenAI API integration and a rule-based fallback to automatically rank tasks.
- Developing a lightweight SQLite backend with a Flask web interface for adding, completing, and reorganizing tasks.

Food Inspection Assignment – A Data Analyst Journey

- Improved food safety analysis by increasing data quality and consistency by 25% through cleaning and standardizing 350K+ inspection records using Alteryx.
- Enhanced reporting accuracy by designing a dimensional data model in Snowflake and automating ETL pipelines with Databricks and Azure Data Factory.
- Delivered actionable insights by building interactive Power BI dashboards to visualize inspection trends and risk levels.

EduLink - Educational Resource Collaboration Platform

- Streamlined collaboration between students, NGOs, donors, and enterprises by building a role-based Java Swing application with secure access control for multiple user types.
- Improved process transparency by automating request handling, class scheduling, and donor funding workflows.
- Enhanced operational efficiency by developing modular UI panels for role-specific task management.